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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,217	10/13/2000	Yoshiaki Tomotake	2000-1428A	3623

7590 09/01/2004

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EXAMINER
FERGUSON, LAWRENCE D

ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 09/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/673,217	TOMOTAKE ET AL.
	Examiner	Art Unit
	Lawrence D Ferguson	1774

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed June 18, 2004.

Claims 9-12 are cancelled and claims 13-15 are added and pending.

Claim Rejections – 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiya et al. (U.S. 4,758,461) in view of Suenaga et al. (U.S. 6,133,170).

4. Akiya discloses an ink jet recording paper having excellent ink absorptivity where the ink can be rapidly absorbed into the recording layer and enhanced coloring density (column 1, lines 6-10 and column 6, lines 21-26). Akiya discloses the recording paper comprises pulp such as LBKP and NBKP (column 3, lines 58-61) which are hardwood bleached kraft pulp and softwood bleached draft pulp, respectively.

Although Akiya discloses material used to make mercerized pulp (LBKP and NBKP), the reference does not explicitly disclose mercerized pulp. Suenaga teaches a recording paper (column 9, lines 17-26) comprising bleached mercerized pulps (column

7,lines 1-6). Akiya and Suenaga are analogous art because they are both from the same field of recording papers. It would have been obvious to one of ordinary skill in the art to mercerize the pulp of Akiya because Suenaga teaches mercerizing the pulp material reduces the density of the recording paper (column 7, lines 6-8). Neither reference shows that the ink jet recording paper has a weight percent of the mercerized pulp as in instant claim 13. However, such weight percentage is a property which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the weight percent, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. weight percentage) fails to render claims patentable in the absence of unexpected results. The aforementioned limitation is optimizable as it directly affects the integrity and resiliency of the recording paper. As such, they are optimizable. It would have been obvious to one of ordinary skill in the art to make the recording paper with the limitations of the weight percentage since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 USPQ 215 (CCPA 1980).

Additionally, neither reference explicitly discloses the liquid transfer length. The liquid transfer length is based upon the types of materials used. Since the recording paper of the combined references are made with mercerized pulp having excellent ink absorptivity where the ink can be rapidly absorbed into the recording layer and enhanced coloring density (column 1, lines 6-10 and column 6, lines 21-26), the liquid

transfer length would be expected to be the same as claimed. In claim 13, the phrase, "when distilled water has been set at 50uL in a head box of 1mm slit width and 15mm slit length and the moving speed of a test specimen has been set to 5.0mm/sec" introduces a process limitation to the product claim. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims.

Response to Arguments

5. Arguments to rejection made under 35 U.S.C. 103(a) as being unpatentable over Akiya et al. (U.S. 4,758,461) in view of Suenaga et al. (U.S. 6,133,170) have been considered but are unpersuasive. Applicant argues Suenaga does not disclose the mercerized pulp may be used as an ink recording paper having a high ink coloring density and high ink absorption speed. Applicant is arguing intended use of Suenaga. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Akiya discloses an ink jet recording paper having excellent ink absorptivity where the ink can be rapidly absorbed into the recording layer and enhanced coloring density (column 1, lines 6-10 and column 6, lines 21-26). Applicant further argues in the claimed invention the mercerized pulp is used and a predetermined liquid transfer length is defined in order to improve both ink absorptivity and coloring density. Applicant is arguing intended use, which is given little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963). Furthermore, Akiya discloses an ink jet recording paper having excellent ink absorptivity where the ink can be rapidly absorbed into the recording layer and enhanced coloring density (column 1, lines 6-10 and column 6, lines 21-26) which is the improvement Applicant's claim.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

LF

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